

Patent Claims:

1. Customer assistance system for stores with a very large sales area, particularly hypermarkets, as they are called, in which a plurality of information output devices, particularly display panels, which are arranged so as to be distributed over the sales area for outputting information directed to the customers and at least one central computer are provided, wherein the central computer controls the output of information, particularly advertising information, by means of the information output devices, for example, display panels, characterized in that
 - a) at least one device containing a touch screen is arranged at the entrance to the sales area in order to allow the customer to designate at least one desired good or group of goods in a machine-readable manner and, at the same time, to request help in finding the position of the associated sales shelf or the associated storage location;
 - b) every shopping cart and every shopping basket is provided with a passive identification which can be interrogated and which form a temporary identity;
 - c) the device containing the touch screen is outfitted with an interrogating device which is formed by a transmitter/receiver unit for

reading into and conveying to the central computer the identification of the shopping cart or shopping basket that is carried by the customer operating the touch screen as a temporary identity;

- d) a plurality of interrogating devices each formed by a transmitter/receiver unit are arranged so as to be distributed over the sales area for detecting and reporting on the identification and temporary identity of the respective shopping cart or the respective shopping basket passing through their area;
- e) at least some of the interrogating devices formed by a transmitter/receiver unit are arranged at one of the information output devices, particularly display panels, and some of the transmitting/receiver units are arranged at the respective sales shelf;
- f) the information output devices, particularly display panels, at least areas thereof are dedicated to outputting or displaying guide information or route information for the customer;
- g) all interrogating devices and all information output devices, particularly display panels, that are formed by a transmitter/receiver unit, are connected to a central computer; and

- h) the central computer is outfitted with expertise, particularly self-learning machine knowledge, suitable for customer assistance.
2. Customer assistance system according to claim 1, characterized in that every shopping cart and every shopping basket is outfitted with a transponder which sends an unmistakable identification specifically associated with the shopping cart and shopping basket.
 3. Customer assistance system according to claims 1 and 2, characterized in that a transmitter/receiver unit which interrogates the identification or temporary identity of the transponder arriving in its range and transmits this to the central computer is associated at least with every information output device.
 4. Customer assistance system according to claims 1 to 3, characterized in that a transmitter/receiver unit is associated at least with every sales shelf, preferably with every group of goods located in a sales shelf, which transmitter/receiver unit interrogates the identification or temporary identity of the shopping carts or shopping baskets entering its range and particularly the transponder arranged at the shopping cart or shopping basket, and transmits this to the central computer.
 5. Customer assistance system according to claims 1 to 4, characterized in that a transmitter/receiver unit for interrogating the transponder of shopping

carts or shopping baskets which arrives in the range of the transmitter/receiver unit or in the range of the checkout is associated with every checkout, which transmitter/receiver unit interrogates the identification or temporary identity of the transponder arriving in its range and transmits this to the central computer together with the itemized goods.

6. Customer assistance system according to claims 1 to 5, characterized in that the display panels forming the information output devices contain directional information displays, particularly word reproductions and directional arrows, which relate to goods and which are controlled by the central computer.

7. Customer assistance system according to claims 1 to 6, characterized in that the information output devices are formed by illuminated panels which are controlled by the central computer so as to display advertising notices until a shopping cart or shopping basket whose identification or temporary identity makes it necessary to provide customer information, particularly directional information, arrives in the range of the associated transmitting/receiver unit that is suitable for interrogating the identification.

8. Customer assistance system according to claims 1 to 7, characterized in that, at least preferably, an advertisement relating to a product desired by the customer or to the product group desired by the customer is displayed on the

display panels forming the information output devices in connection with directional information for the customer.

9. Customer assistance system according to claims 1 to 8, characterized in that the central computer is outfitted with a device for storing and linking the buying desire entered on the touch screen by the customer and the temporary identity of the customer given by the transponder of the shopping cart or shopping basket carried by the customer, and in that the central computer is further outfitted with a device for generating a guidance program and for controlling the displays on the information output devices, which displays are required for handling the guidance program.

10. Customer assistance system according to claims 1 to 9, characterized in that the central computer is outfitted with a comparison device which compares the guidance program prepared on the basis of the request entered by the customer to the customer's actual path through the sales area and, if required, i.e., in the event that the path of the customer deviates from the determined guidance program, generates the display of correction instructions, particularly detour instructions, on the information output devices located in the estimated continued path of the customer.

11. Customer assistance system according to claims 1 to 10, characterized in that the central computer is outfitted with a device that provides expertise with respect to related groups of goods, particularly of accessory goods appropriate for a principal good.

12. Customer assistance system according to claims 1 to 11, characterized in that the central computer is outfitted with expertise with respect to a general purchasing behavior of customers and a linking device for preparing a guidance program which takes into account suitable, possibly comparable groups of goods or goods empirically found to lie within the area of interest of a customer interested in a first good or group of goods.

13. Customer assistance system according to claims 1 to 12, characterized in that the central computer is outfitted with a device for documenting the buying desire that is entered, for tracking, and for detecting the purchased items of every customer that can be identified by a transponder.

14. Customer assistance system according to claims 1 to 13, characterized in that the central computer is outfitted with an interpolating device for determining a characteristic customer behavior which deviates at least partially in relation to the buying desire that is originally entered.

15. Customer assistance system according to claims 1 to 14, characterized in that the central computer is outfitted with additional devices for statistical evaluation of more or less typical customer behaviors.

16. Customer assistance system according to claims 1 to 15, characterized in that the central computer is outfitted with additional devices for preparing a machine knowledge in a self-learning manner.

17. Customer assistance system according to claims 1 to 16, characterized in that a device is provided in the central computer which records the times during which the information output devices, particularly display panels, are occupied by a standardized or general advertising display for a specific advertiser in the role of client of the store and sums them for subsequent accounting.

18. Customer assistance system according to claims 1 to 17, characterized in that the touch screens arranged at the entrance or entrances to the sales area each have a surface which is divided into groups of goods and which is switched to a second surface when a group of goods is typed in, which second surface shows in detail all goods of the selected group of goods, and it is accordingly possible for the customer to enter specific goods in a simple manner.